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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/592,915	09/15/2006	Heath Townsend	5873-000021/US/NP	6287
27572 7590 10/05/2009 HARNESSE, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER JANAKIRAMAN, NITHYA				
ART UNIT 2123		PAPER NUMBER		
MAIL DATE 10/05/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/592,915

**Applicant(s)**

TOWNSEND ET AL.

**Examiner**

NITHYA JANAKIRAMAN

**Art Unit**

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 2/22/2007  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to the submission filed on 9/15/2006, which claims priority from Australian application AU 2004901480 with priority date 3/19/2004. Claims 1-24 are presented for examination.

#### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Australia on 3/19/2004. It is noted, however, that applicant has not filed a certified copy of the AU 2004901480 application as required by 35 U.S.C. 119(b).

#### ***Information Disclosure Statement***

2. The information disclosure statement filed 2/22/2007 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because certain references do not contain a date, and have thus been "lined out". It has been placed in the application file, but the information referred to in the lined out references has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Specification***

3. The Abstract is objected to as it is directed towards a process claim, which does not conform to standard practice. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

### ***Claim Objections***

4. Claim 4 is objected to because of the following informalities: the phrase "...properties include steps in one of more surfaces..." which is grammatically incorrect. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 10 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Regarding claim 10, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
7. Regarding claim 23, it is unclear as to whether it is an independent or dependent claim.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 24 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
9. Claim 24 recites a "computer program element" comprising a series of instructions. Giving the claim a broad reasonable interpretation, the claim recites a software 'system' comprising software *per se*, which does not comprise statutory subject matter.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by “GEOPAK REBAR for Microstation”, 1998, listed on the IDS dated 2/22/07 (hereinafter GEOPAK).

11. Regarding claims 1, 23 and 24, GEOPAK discloses:

An automated method of scheduling reinforcing bars for use in reinforced products (*page 1: “reinforced concrete detailing and scheduling”*), the method including the steps of:

storing default reinforced product parameters in a database (*page 2: Bar Shape Library, Rebar’s Object library*);

receiving in electronic form one or more drawings containing reinforced product properties including one or more characterisations for at least one reinforcing bar in the reinforced product (*page 2: “...any existing drawing, allowing the recall of similar details created for previous projects”*);

in a database engine, reading said drawing(s) including said characterisation(s) in the drawings, thereby detecting said reinforced product properties including said one or more characterisations for at least one reinforcing bar in the reinforced product (*page 2: “...any existing drawing, allowing the recall of similar details created for previous projects. Extracted details are dynamically transferred to new drawings and adjusted by the software to suit the new project parameters”*); and

using the stored reinforced product parameters and detected reinforced product properties to generate reinforcing bar scheduling data (*page 2: Automatic Scheduling and Charting*).

12. Regarding claim 2, GEOPAK discloses:

A method according to claim 1, wherein the reinforced products include reinforced concrete products, including any one or more of a concrete slab, beam, column, wall, stair, tilt panel, coupler, top hat, bar chair and laser bar (*page 2: "concrete details"*).

13. Regarding claim 3, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include any one or more of the outline of the reinforced product, the extent of the reinforced product and any penetrations of the reinforced product (*page 2: "concrete outline"*).

14. Regarding claim 4, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include steps in one of more surfaces of the reinforced product, including any visible and hidden steps in the reinforced product (*page 2: "footings"*).

15. Regarding claim 5, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include text characterising one or more of the reinforcing bars (*page 3: "labels"*).

16. Regarding claim 6, GEOPAK discloses:

A method according to claim 5, wherein the text characterises the dimensions of reinforcing bars or the spacing between reinforcing bars (*page 3: "dimensions"*).

17. Regarding claim 7, GEOPAK discloses:

A method according to claim 6, wherein the reinforcing bar dimensions include any one or more of shape, length and position within a layer of the reinforced product (*page 3, "bar length"*).

18. Regarding claim 8, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include the shape of one or more of the reinforcing bars (*page 2: "bar-shape"*).

19. Regarding claim 9, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include the extent of one or more ranges of the reinforcing bars (*page 2: "non-linear bar ranges"*).

20. Regarding claim 10, GEOPAK discloses:

A method according to claim 1, wherein the reinforcing bars include primary reinforcing bars or secondary reinforcing bars, such as distribution steel (*page 2: "steel designations"*).

21. Regarding claim 11, GEOPAK discloses:



A method according to claim 1, wherein the reinforced product properties include data characterising the secondary reinforcing bars (*page 2: “steel designations”*).

22. Regarding claim 12, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include positions where one or more reinforcing bars overlap (*page 3: “overlapping”*).

23. Regarding claim 13, GEOPAK discloses:

A method according to claim 1, wherein the reinforced product properties include the gradient of one or more portions of the reinforced product (*page 4: “scale factor”*).

24. Regarding claim 14, GEOPAK discloses:

A method according to claim 1, wherein the default reinforced product parameters include the bottom or top cover of the reinforced product (*page 2: “special prompts for...cover...”*).

25. Regarding claim 15, GEOPAK discloses:

A method according to claim 1, wherein the default reinforced product parameters includes bar overlap lengths (*page 3: “overlapping”*).

26. Regarding claim 16, GEOPAK discloses:

A method according to claim 1, wherein the default reinforced product parameters include default bar shapes or dimensions (*page 3: “Shapes from the entire library...”*).

27. Regarding claim 17, GEOPAK discloses:

A method according to claim 1, the method further including the step of:  
selecting one or more zones within the one or more reinforced product drawings to carry out  
reinforcing bar scheduling (*page 1: "areas of congestion"*).

28. Regarding claim 18, GEOPAK discloses:

A method according to claim 17, wherein each zone corresponds to separately constructed  
portion of the reinforced product (*page 1: "areas of congestion"*).

29. Regarding claim 19, GEOPAK discloses:

A method according to claim 18, wherein at least one separately constructed portion is a  
separately poured section of a reinforced concrete product (*page 2: Custom Concrete Details"*).

30. Regarding claim 20, GEOPAK discloses:

A method according to claim 1, the method further including the step of:  
at a display terminal, displaying the reinforcing bar scheduling data (*page 2: see all graphs*).

31. Regarding claim 21, GEOPAK discloses:

A method according to claim 1, the method further including the step of:  
rationalising the reinforcing bars for use in the reinforced products (*page 3: "as details within  
the MicroStation drawing update automatically, so too do the scheduled quantities. Rebar*

*dynamically updates its schedules at the same time that details are updated, eliminating errors that can occur in manual adjustment”).*

32. Regarding claim 22, GEOPAK discloses:

A method according to claim 21, wherein the step of rationalising the reinforcing bars includes: selecting reinforcing bars having dimensions within a predefined tolerance; and re-labelling the selected reinforcing bars within the same dimensions on the reinforced product drawings (page 3: “as details within the MicroStation drawing update automatically, so too do the scheduled quantities. Rebar dynamically updates its schedules at the same time that details are updated, eliminating errors that can occur in manual adjustment”).

- While only certain citations have been given, Applicant should consider the reference in its entirety.

#### ***Additional References Cited***

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

34. US 5,855,721: A method of determining the position and condition of reinforcing steel embedded in concrete is described. Electrodes are used to carry out the method by contacting the outer surface of the concrete. The method measures the impedance of selected regions of the concrete by measuring the voltage generated across said selected regions by a current flowing through the concrete.

35. US 6,859,768: A computer-implemented automated building design and modeling and construction project cost estimating and scheduling system ("DMES system") is described. The DMES system provides a central source for all of the design and construction information for a construction project in a coordinated two-dimensional and three-dimensional spatial database that is freely accessible by all of the members of an interdisciplinary construction project team as a means to produce automatically coordinated design development and construction document information.

36. US 7,130,775: An integrated building production information system including design CAD based on software of building, structure, and equipment, and databases built in the outside separately from the design CAD, the databases making an integrated DB (shared database)-CAD system of building, structure and equipment as an execution-linked system in DB-CAD's sharing of a standard database, wherein the integrated building production information system stores the information made compatible by three-dimensional superposition at the time of design into a shared database (DB) of the integrated DB-CAD system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NITHYA JANAKIRAMAN whose telephone number is (571)270-1003. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571)272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nithya Janakiraman/  
Examiner, Art Unit 2123

/Paul L Rodriguez/  
Supervisory Patent Examiner,  
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